LS telcom
Tomorrow's Communications Designed Today.

Handheld Monitoring

LS OBSERVER

Portable Monitoring Unit

www.LStelcom.com

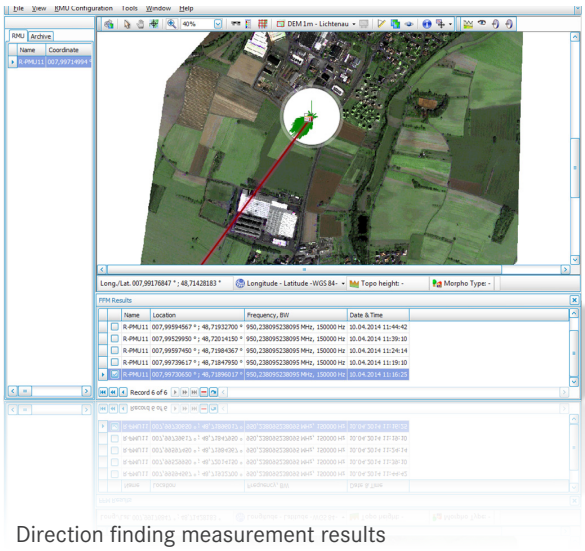
Great Flexibility with the LS OBSERVER
PMU (Portable Monitoring Unit)

The LS OBSERVER PMU is the smallest monitoring unit available for the LS OBSERVER spectrum monitoring system. It allows you to obtain, analyse, and store measurements within the frequency range from 9 kHz to 4.4 GHz or from 100 kHz to 12.4 GHz. The device can be used as a handheld, mobile, or portable unit and includes a large screen for the display of measurement results.

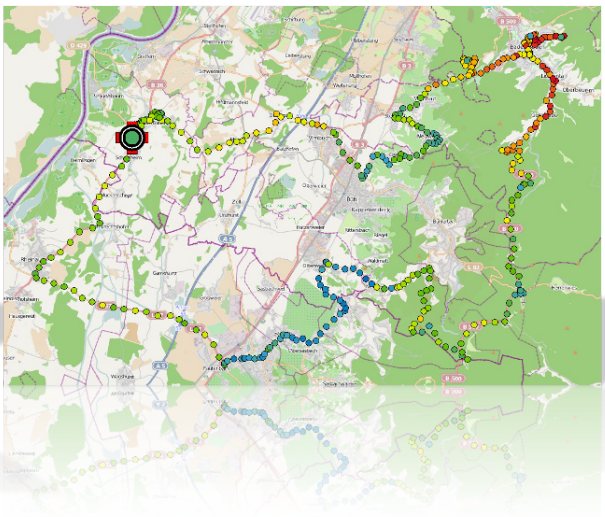
The touch screen provides an intuitive interface to control the device. Accessories such as tripod, cables and portable antennas are also available. The LS OBSERVER small and smart sensors can be remote controlled and can run in stand-alone mode 24/7. It withstands all kinds of weather and is also available in a ruggedised version.

Use LS OBSERVER for the following
Measurement Applications

- General spectrum monitoring
- Network coverage measurements
- Direction finding to locate illegal or interfering transmitters
- Radio surveillance for events, VIP or border control
- Control of critical communications networks
- Detection of white spaces
- Tunnel measurements
- Near reconnaissance



Direction finding measurement results



Drive test display

A family of 5 different types of Remote Monitoring Units (RMU) is available with LS OBSERVER de

LS OBSERVER TMU
Transportable Monitoring Unit

Ideal for temporary mobile and fixed measurements, battery powered.

LS OBSERVER FMU
Fixed Monitoring Unit

Ideal for continuous measurements/long-term installation, to cover a large range of frequencies

LS OBSERVER MMU
Mobile Monitoring Unit

Ideal for drive-tests and cor missioning measurements

Options & Accessories

Built-In UMTS – 3G Mobile Data Link

Built-In WiFi

Built-In Bluetooth

Hand-Free Harness

Carry Case

5/10m Low Loss Cables

Vehicle Fixing

Docking Station

Kit

Directional Antennas

Spare Parts (battery, HDD/SSD, PSU and Cables)

Carry Bag

Monitoring Antennas

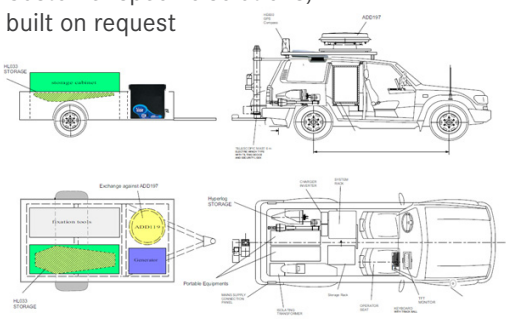
Why would I use LS OBSERVER PMU ?

+ Because I can use my measurement results straight away AND store them for future needs.
(I may want to compare today's measurement results with measurements I make in the future or against data in the database.)
+ Because the LS OBSERVER PMU is part of a monitoring system that grows with my needs and my budget. (I can order a small number of units or a complete system, I can add stations one by one, and any type of station that I need.)

pending on your needs - for flexible use and a wide range of applications

LS OBSERVER
System Integration

Customer specific solutions,
built on request



Airborne Measurement Service
Using Remotely Piloted Aircraft (RPA)

RF & antenna pattern measurements,
site inspection and very mobile monitoring

Service offered by Colibrex
Member of the LS telcom Group

Technical Details LS OBSERVER PMU

		PMU 100	PMU 160
RF Characteristics			
RF Characteristics	Frequency range	9 kHz to 4.4 GHz	100 kHz to 12.4 GHz
	Scanning speed	up to 140 MHz/s	
	Max. input level	+20 dBm, 0 VDC	
	IQ bandwidth	up to 240 kHz	
	Frequency accuracy	1 ppm	
Connectivity			
Connectivity	RF antenna inputs	1x N-Type	
	External GPS antenna input	yes	
	Wired networking	1x Gigabit-Ethernet	
	Wireless networking	opt. UMTS, opt. LTE	
	Wireless local networking	opt. WiFi (802.11 b/g), opt. Bluetooth	
Geolocation			
Geo-location	Direction Finding (DF)	yes*	
	Power Difference of Arrival (PDoA)	yes	
	Time Difference of Arrival (TDoA)	no	
	GPS receiver	yes	
	Integrated GPS antenna	yes	
Storage			
Storage	Storage time of raw data	up to 30 days	
	Storage time of statistic data	up to 2 years	
Environmental Parameters			
Environmental Parameters	Ruggedised	yes	
	Temperature range	-5°C** to +40°C	-5°C** to +40°C
	Power supply	90-264V, 50-60Hz or 11-32V, DC	
	Power consumption	max. 40 VA	
	Battery runtime (typ.)	2 hours	
	Weight (system unit)	< 5 kg	
	Dimensions in mm (W/H/D)	260 x 230 x 80	
	Humidity (non condensing)	up to 100 %	
	Shock / Vibration	40 g / 11 ms	
	Protection	IP 54	
	Colour	black / silver	

*: requires an additional directional antenna

**: startup temp. 0°C

For further information, please visit our website: www.LStelcom.com
or contact us: Info@LStelcom.com.

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